



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE USE OF TRAVELING MUSEUMS IN THE PUBLIC SCHOOLS OF CHICAGO.

THE traveling museum has been on trial for two years in the Chicago public schools. Under the direction of a voluntary organization of school principals, it has proved a very useful aid in the teaching of geography, nature-study, and other subjects. As a result, the Chicago Board of Education has given it official recognition, and has intrusted its further development to the Chicago Normal School.

At the time of the Columbian Exposition many Chicago teachers obtained valuable museum material for use in their classrooms. They soon recognized, however, that specimens alone do not constitute a museum. Pictures must be added, and text interpreting the material exhibit. Where did the specimens come from? Under what conditions were they produced or obtained? What is their relation to man's life and to his work? These and many other questions needed to be answered in a simple, direct way, if the material was to prove useful in teaching. The interpretation of a wide range of museum material involved more work than the teachers in any one school could undertake; and it seemed a useless expenditure of time for each school to advance independently and duplicate many parts of the work that need be done only once if the results could be shared by all of the schools.

With these considerations in mind, a movement was started by the Chicago Principals' Association, in 1901, to enable all of the Chicago public schools to co-operate in the preparation and use of museum material. The originators of this movement believed that, under competent direction, a moderate expenditure of time and money would result in developing a valuable series of small museum collections illustrating definite topics in the course of study; and that these collections could be circulated among the schools according to a prearranged schedule that would keep each museum in constant use throughout the school year. The Principals' Association indorsed this plan and appointed a com-

mittee to provide for its realization. In May, 1901, the committee formed an organization, known as the Chicago Bureau of Geography, which had for its members about forty of the Chicago public schools. The funds needed were contributed by members or obtained from private sources. Headquarters were established in the building of the Chicago Academy of Sciences in Lincoln Park. A considerable amount of material, including specimens, pictures, and interpretative text, was gathered together and under the direction of practical teachers was grouped in small, monographic collections.

At first the problem of classification appeared to present serious difficulties. Each collection must be complete in itself — an independent unit illustrating a definite element in the course of study. Duplication of material must be avoided, if possible, so that classes might use the collections in a progressive series. At the same time the material selected must be typical in character and simple enough to be within the comprehension of pupils in elementary schools. Geography, history, nature-study, manual training, and the domestic arts, all included topics that could be illustrated with the aid of museum material. The directors of the bureau decided, however, to confine their efforts at first to illustrating topics in geography, and to use as a basis for grouping the material the classification of raw products which is used by the United States government in its official publications.

Experience soon showed that the success of the plan depended very largely on the ease and promptness with which collections could be transported from school to school. Chicago spreads over an area of one hundred and eighty square miles, and nothing short of a complete system of free delivery would make it possible to use the collections in all parts of the city. So the headquarters of the bureau were moved to the supply-rooms of the board of education, and permission was obtained to use the supply wagons of the board, which visit each school once a week, in delivering and returning collections.

Each school which had joined the bureau was asked to prepare a schedule showing when it desired to receive certain collections and how long it desired to keep them. The museums

were booked in advance, as nearly as possible in the order indicated by these schedules, and a copy of the bookings was sent to each school, so that the teachers might know when the material illustrating a given subject would reach them. In this way it became possible for teachers to make systematic use of museum material without giving any time to its preparation. For example, a silk collection could be obtained when France, China, or some other silk-producing country had been reached by geography classes; an iron collection, when the industries of England were under discussion; or a comprehensive body of material illustrating the Philippines, when classes were studying our island possessions. The workers in the bureau were themselves teachers and could test the material in the class-room before starting it on a journey among the schools.

It may be of interest to teachers outside of Chicago to know something about the sources from which material was obtained for these collections, and the methods of installation which made it possible for specimens to be examined by thousands of children without being destroyed. Nearly all of the specimens came from importers, manufacturers, and dealers who were handling the great staples of commerce and were willing to present to Chicago teachers the small quantities needed by the bureau. Frequently the same firms were able to supply, in addition, advertising material containing illustrations that were admirably adapted for use in supplementing the specimens. For example, the McCormick Harvesting Machine Company presented samples of Sisal and Manila hemp, and the binder twine made from both fibers; and copies of an illustrated twine catalogue and of a book containing one hundred harvest scenes in all parts of the world. The twine catalogue gave a good description of the production of Sisal hemp in Mexico and of Manila hemp in the Philippines, the transportation of both to Chicago, and each successive step in the transformation of the two fibers into the binder twine. The hundred harvest scenes included beautiful views from twenty-eight different countries in which wheat, corn, hay, and other crops are harvested by hand or by machines. To this nucleus the bureau added a fine series of pictures, with explanatory text

taken from a pamphlet entitled *Some Useful Plants of Mexico*, by J. N. Rose, published by the United States Department of Agriculture; together with pictures from several other sources, and a leaf of the century plant partly combed out so as to show how structural fibers are separated from the fleshy parts of the plants in which they occur. The resulting collection was used in a variety of ways by different schools: (1) in teaching the climatic conditions, the products, and the native industries of Mexico; (2) in teaching about the Philippines; (3) to illustrate methods of agriculture in all parts of the world; and (4) to show how a great Chicago industry reaches out to the other side of the world for raw materials, transforms them into useful manufactured products, and then sends them to every farming region in the world.

In a similar manner collections were formed to illustrate other great staples of commerce, including the more important food products of vegetable origin, food products of animal origin, raw materials of vegetable origin, raw materials of animal origin, products of the forests and of fisheries, mineral products, and products of manufacture.

Government documents proved to be an almost inexhaustible source from which to obtain pictures and text to illustrate and interpret the specimens. A simple enumeration of the titles of the government documents used in these collections would expand the present article far beyond the limit which has been set by the editor. Such a list would, however, furnish an exceedingly valuable clue to one means by which any elementary-school teacher can obtain without expense an equipment for the teaching of geography that would be of great service, not only in her own preparation, but also in the class-room work of her pupils.

After numerous experiments, the workers in the bureau developed a plan of installation that proved to be very satisfactory. Certain standard sizes were adopted for each of the installation devices needed; and, as far as possible, only those sizes were used in preparing the ten thousand specimens, pictures, maps, and printed articles that have thus far been placed in the collections. Specimens were put into four-ounce wide-mouthed

glass bottles with flat corks; pictures were mounted on gray cards, ten by twelve inches in size; magazine articles and clippings were placed in strong Manila covers or mounted on perforated Manila sheets of uniform size and bound together with brass fasteners; additional text was typewritten on white sheets and bound in covers made from the Manila sheets; each specimen, picture, and article was carefully labelled and assigned a separate accession number; and a typewritten catalogue was prepared so that teachers might see at a glance what material a collection contained as soon as it entered the class-room. Each kind of material—specimens, pictures, and articles—was placed in a separate box made of heavy pasteboard reinforced at the corners with cloth; and these boxes were inclosed in an outside wooden box that could be transported from school to school without danger of injury to its contents.

During the year 1902-3 the bureau sent more than eleven hundred collections to sixty different schools; and before the year closed applications were received from forty-five of these schools for over fifteen hundred collections to be used in 1903-4. The demand for the material had increased so rapidly that the directors of the bureau were obliged to reject a considerable number of new applications for membership, because it was impossible for volunteer workers to prepare duplicate collections fast enough. When the present school year opened, the pioneer stage in the growth of this work had been completed, and responsibility for carrying it further was transferred to the Chicago Normal School.

RICHARD WATERMAN.

ROBERT EMMET SCHOOL,
Chicago.